

CAMPBELL UNIVERSITY KIVETT HALL ROOF REPAIR

113 MAIN STREET, BUIES CREEK
HARNETT COUNTY, NORTH CAROLINA 27506

DATE: 08-06-2019

OWNER

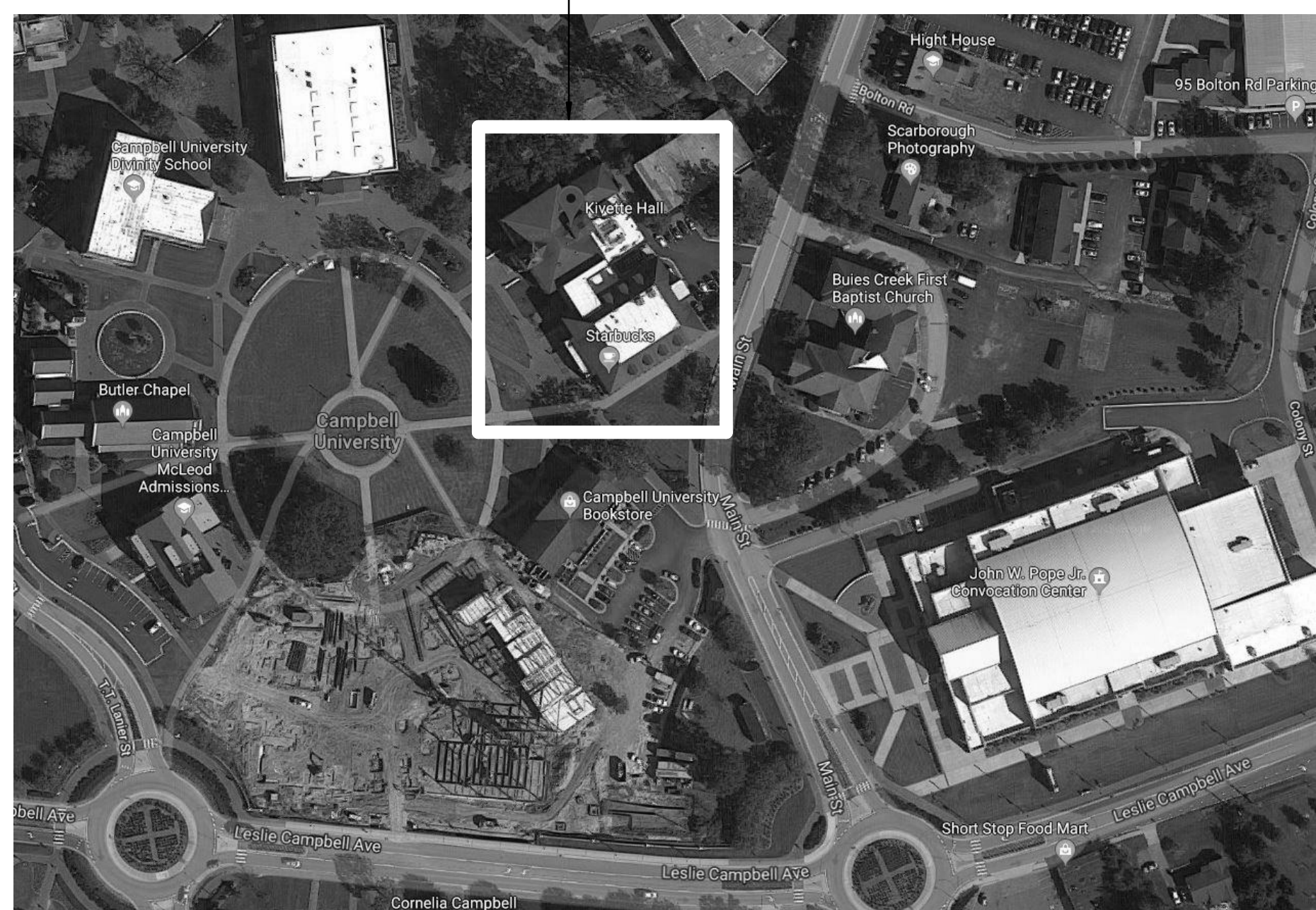
Campbell University
P.O. Box 535
Buies Creek, North Carolina 27506

Contact: Randall Johnson
Email: johnsonr@campbell.edu

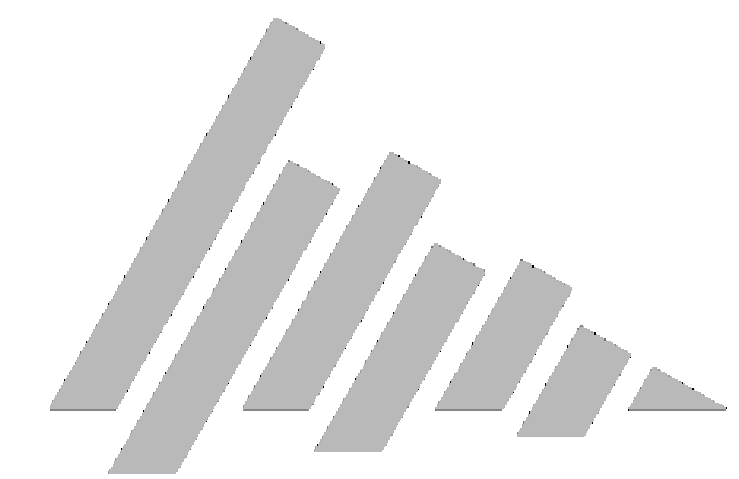
SHEET INDEX:

S001 - GENERAL NOTES, ABBREVIATIONS, & APPENDIX B
S101 - FRAMING PLANS
S201 - SECTIONS & DETAILS

SITE



CONTRACTOR TO NOTIFY "NC 811" AT
LEAST 5 BUSINESS DAYS PRIOR TO
START OF CONSTRUCTION TO HAVE
EXISTING UTILITIES LOCATED.



SCALENE DESIGN
FUNCTION + STRUCTURE + FORM

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**

Name of Project: Campbell University Kivett Hall Roof Repairs
 Address: 113 Main Street, Buies Creek NC Zip Code 27506
 Owner/Authorized Agent: Randall Johnson Phone # (910) 893-1613 E-Mail johnsonr@campbell.edu
 Owned By: Private
 Code Enforcement Jurisdiction: County

CONTACT: Dennis Folmar, Jr., Scalene Design, ph: (919) 825-0225, dfolmar@scalene-design.com

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	N/A				
Civil	N/A				
Electrical	N/A				
Fire Alarm	N/A				
Plumbing	N/A				
Mechanical	N/A				
Sprinkler-Standpipe	N/A				
Structural	Scalene Design, PLLC	Dennis Folmar, PE	029410	(919) 825-0225	dfolmar@scalene-design.com
Retaining Walls >5' High	N/A				
Other	N/A				

2018 NC BUILDING CODE: Renovation

2018 NC EXISTING BUILDING CODE: Repair N/A N/A

CONSTRUCTED: (date) N/A **CURRENT OCCUPANCY(S)** (Ch. 3): N/A
RENOVATED: (date) N/A **PROPOSED OCCUPANCY(S)** (Ch. 3): N/A

RISK CATEGORY (Table 1604.5): **Current:** III **Proposed:** III

BASIC BUILDING DATA

N/A - LIMITED STRUCTURAL REPAIRS ONLY

Gross Building Area Table

N/A - LIMITED STRUCTURAL REPAIRS ONLY

ALLOWABLE AREA

N/A - LIMITED STRUCTURAL REPAIRS ONLY

ALLOWABLE HEIGHT

N/A - LIMITED STRUCTURAL REPAIRS ONLY

FIRE PROTECTION REQUIREMENTS

N/A - LIMITED STRUCTURAL REPAIRS ONLY

2018 NC Administrative Code and Policies

STRUCTURAL DESIGN

DESIGN LOADS:

Importance Factors: Snow (I_s) 1.1
 Seismic (I_e) 1.25

Live Loads: Roof 20 psf

Ground Snow Load: 15 psf

Wind Load: Ultimate Wind Speed 125 mph (ASCE-7)
 Exposure Category B

SEISMIC DESIGN CATEGORY: C

Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) III
Spectral Response Acceleration S_s 17.9 %g S₁ 8.5 %g
Site Classification (ASCE 7) D
 Data Source: Presumptive
Basic structural system N/A
Analysis Procedure: N/A
Architectural, Mechanical, Components anchored? N/A

LATERAL DESIGN CONTROL: N/A

SOIL BEARING CAPACITIES:
N/A psf

MECHANICAL SUMMARY

N/A - LIMITED STRUCTURAL REPAIRS ONLY

ELECTRICAL SUMMARY

N/A - LIMITED STRUCTURAL REPAIRS ONLY

2018 NC Administrative Code and Policies

DESIGN CRITERIA

BUILDING CODES: 2018 NORTH CAROLINA STATE BUILDING CODE
 ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY: III

DESIGN LIVE LOADS: UNIFORM CONCENTRATED
 ROOF 20 PSF 300 LBS
 *ALL LIVE LOADS ARE REDUCED BASED ON TRIBUTARY AREA AS ALLOWED BY THE BUILDING CODES.

SNOW LOAD: GROUND SNOW LOAD, P_G 15 PSF
 IMPORTANCE FACTOR, I_S 1.10
 SNOW EXPOSURE FACTOR, C_E 1.0
 THERMAL FACTOR, C_T 1.0
 FLAT ROOF SNOW LOAD, P_F 15 PSF

WIND LOAD: BASIC WIND SPEED (3 SECOND GUST) 125 MPH
 EXPOSURE CATEGORY B
 ENCLOSURE CLASSIFICATION ENCLOSED
 INTERNAL PRESSURE COEFFICIENT, G_{CPI} ±0.18
 TOPOGRAPHY FACTOR, K_{TZ} 1.00
 APPLIED DIRECTIONALITY FACTOR, K_D 0.85
 WIND BASE SHEAR (X DIRECTION) N/A - EXISTING BUILDING
 WIND BASE SHEAR (Y DIRECTION) N/A - EXISTING BUILDING
 **ALL BUILDING COMPONENTS AND CLADDING WITH STRUCTURAL DESIGN DELEGATED TO THE CONTRACTOR/MANUFACTURER/SUPPLIER ARE REQUIRED TO BE DESIGNED FOR WIND LOADS DETERMINED USING THE ABOVE DESIGN CRITERIA IN ACCORDANCE WITH THE GOVERNING BUILDING CODE(S).

SEISMIC LOADS: USGS DESIGN MAP ASCE 7-10 EQUIVALENT LATERAL FORCE
 DESIGN METHOD 1.0
 IMPORTANCE FACTOR, I_E D (ASSUMED)
 SITE CLASS 17.9%G
 MAPPED SPECTRAL RESPONSE ACCEL S₁ 8.5%G
 SPECTRAL RESPONSE COEFFICIENT, S_{D1} 19.1%G
 SPECTRAL RESPONSE COEFFICIENT, S_{D2} 13.9%G
 SEISMIC DESIGN CATEGORY C
 SEISMIC BASE SHEAR (X DIRECTION) N/A - EXISTING BUILDING
 SEISMIC BASE SHEAR (Y DIRECTION) N/A - EXISTING BUILDING
 ***ALL BUILDING COMPONENTS AND CLADDING WITH STRUCTURAL DESIGN DELEGATED TO THE CONTRACTOR/MANUFACTURER/SUPPLIER ARE REQUIRED TO BE DESIGNED FOR SEISMIC LOADS DETERMINED USING THE ABOVE DESIGN CRITERIA IN ACCORDANCE WITH THE GOVERNING BUILDING CODE(S).

FUTURE LOADS: UNLESS SPECIFICALLY INDICATED ON THE STRUCTURAL DESIGN DRAWINGS THERE HAVE BEEN NO DESIGN PROVISIONS MADE TO ACCOMMODATE FUTURE LOADS OR TO ACCOMMODATE FUTURE ADDITIONS TO THE STRUCTURE.

GENERAL

- G-01 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH CIVIL, LANDSCAPE ARCHITECTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DOCUMENTS AS WELL AS ANY OTHER APPLICABLE TRADES. THE CONTRACTOR IS TO NOTIFY THE DESIGN TEAM OF ANY IDENTIFIED DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION USING THE REQUEST FOR INFORMATION AND/OR SUBMITTAL PROCESS.
- G-02 THE STRUCTURAL CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND EXCEPT WHERE SPECIFICALLY SHOWN DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE, AND PROCEDURES.
- G-03 THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE AND FOR APPLICATION OF CONSTRUCTION LOADS TO THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION AND REMOVAL OF ALL TEMPORARY BRACING, FORMWORK, SUPPORTS, AND SHORING REQUIRED TO STABILIZE THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR IS TO UTILIZE A THIRD PARTY STRUCTURAL ENGINEER TO PROVIDE THE DESIGN AND DOCUMENTATION FOR TEMPORARY BRACING, FORMWORK, SUPPORTS AND SHORING AS REQUIRED.
- G-04 THE CONTRACTOR IS TO VERIFY ALL EXISTING UTILITIES AND EXISTING BUILDING DIMENSIONS AND CONDITIONS AS THEY APPLY TO THE NEW STRUCTURAL CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN TEAM OF ANY IDENTIFIED DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION USING THE REQUEST FOR INFORMATION AND/OR SUBMITTAL PROCESS.
- G-05 THE CONTRACTOR IS TO PROTECT ALL EXISTING AND NEW UTILITIES, STRUCTURES, AND FACILITIES FROM DAMAGE DURING CONSTRUCTION.
- G-06 ANY WORK NOT IN CONFORMANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS OR THE APPLICABLE BUILDING CODE(S) WILL BE CORRECTED BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE STRUCTURAL ENGINEER OF RECORD.
- G-07 SECTIONS, DETAILS AND NOTES APPLY TO ALL LIKE OR SIMILAR CONDITIONS. THE DO NOT SCALE STRUCTURAL DRAWINGS TO OBTAIN DIMENSIONAL INFORMATION. THE CONTRACTOR IS TO REQUEST ANY DIMENSIONAL INFORMATION REQUIRED USING THE REQUEST FOR INFORMATION AND/OR SUBMITTAL PROCESS.
- G-09 THE STRUCTURAL PLANS DO NOT SHOW EVERY OPENING OR PENETRATION REQUIRED THROUGH STRUCTURAL ELEMENTS. THE CONTRACTOR IS TO VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES, TRADES AND SHOP DRAWINGS. OPENINGS ARE TO BE CONSTRUCTED USING TYPICAL DETAILS AND CRITERIA PROVIDED ON THE STRUCTURAL DRAWINGS. OPENINGS REQUIRED THAT CANNOT CONFORM TO THE TYPICAL DETAILS OR CRITERIA PROVIDED ON THE STRUCTURAL DRAWINGS ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

DEMOLITION

- D-01 THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE EXISTING STRUCTURE AND FOR APPLICATION OF CONSTRUCTION LOADS TO THE EXISTING STRUCTURE DURING THE DEMOLITION PROCESS AND UNTIL THE FINAL CONSTRUCTION OF THE STRUCTURE IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION AND REMOVAL OF ALL TEMPORARY BRACING, FORMWORK, SUPPORTS, AND SHORING REQUIRED TO STABILIZE THE EXISTING STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR IS TO UTILIZE A THIRD PARTY STRUCTURAL ENGINEER TO PROVIDE THE DESIGN AND DOCUMENTATION FOR TEMPORARY BRACING, FORMWORK, SUPPORTS AND SHORING AS REQUIRED.
- D-02 ALL EXISTING FOUNDATIONS AND FRAMING SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE INDICATED FOR REFERENCE ONLY AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THOSE SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS. EXISTING STRUCTURAL FRAMING SHOWN IS BASED ON FIELD VERIFICATION OF VISIBLE ELEMENTS.

WOOD FRAMING

- W-01 WOOD PROPERTIES:
 STRUCTURAL LUMBER: SOUTHERN YELLOW PINE NO.2
 PRESSURE TREATED STRUCTURAL LUMBER: SOUTHERN YELLOW PINE NO.2
 ROOF SHEATHING: PLYWOOD OR OSB, 5/8" STANDARD C.D. EXPOSURE 1, PANEL INDEX 40/20
 DETAIL, FABRICATE AND INSTALL ALL WOOD FRAMING PER STRUCTURAL CONTRACT DOCUMENTS AND NOTES.
- W-02 ALL WOOD FRAMING NOT SHOWN ON STRUCTURAL DRAWINGS SHALL BE THE MINIMUM SIZE REQUIRED BY THE BUILDING CODE.
- W-03 ALL CONVENTIONAL LUMBER IN CONTACT WITH CONCRETE OR MASONRY OR CLOSER THAN 18" TO EARTH IS TO BE PRESSURE TREATED SOUTHERN YELLOW PINE AS INDICATED ABOVE. ALL ENGINEERED WOOD PRODUCTS IN CONTACT WITH CONCRETE OR MASONRY OR CLOSER THAN 18" TO EARTH IS TO BE CHEMICALLY TREATED OR WOLMANIZED TO SATISFY AWPA USE CATEGORY 3 OR 4.
- W-04 FOLLOW STRUCTURAL DRAWINGS FOR BLOCKING AND BRIDGING REQUIREMENTS. AS A MINIMUM, PROVIDE SOLID 2x BLOCKING AT ALL RAFTERS AND JOISTS AT THE FOLLOWING LOCATIONS:
 ALL BEARING POINTS
 MIDSPAN
 END OF ALL CANTILEVERED MEMBERS
 8'-0" ON CENTER
- W-05 FOLLOW STRUCTURAL DRAWINGS FOR ACCEPTABLE OPENINGS, HOLES AND SPECIAL NOTCHING OF STRUCTURAL WOOD FRAMING MEMBERS REQUIRED FOR THE INSTALLATION OF PLUMBING, ELECTRICAL, TELECOMMUNICATION, MECHANICAL OR OTHER UTILITY LINES AND CONDUIT THROUGH WOOD MEMBERS. THE CONTRACTOR IS TO NOTIFY THE DESIGN TEAM OF ANY CONDITIONS THAT DO NOT COMPLY WITH DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.

ABBREVIATIONS

@	AT	HD	HEADED
&	AND	HORZ	HORIZONTAL
#	NUMBER	INT	INTERIOR
AB	ANCHOR BOLTS	INFO	INFORMATION
ADDL	ADDITIONAL	JT	JOINT
AFF	ABOVE FINISHED FLOOR	K	KIPS
ALT	ALTERNATE	KSJ	KIPS PER SQUARE INCH
ARCH	ARCHITECT / ARCHITECTURAL	LBS	POUNDS
BOT	BOTTOM	LLH	LONG LEG HORIZONTAL
BCF	BOTTOM CHORD EXTENSION	LLV	LONG LEG VERTICAL
BLDG	BUILDING	LWC	LIGHTWEIGHT CONCRETE
BOS	BOTTOM OF STEEL	MAX	MAXIMUM
BRG	BEARING	MC	MOMENT CONNECTION
BTWN	BETWEEN	MECH	MECHANICAL
CANT	CANTILEVER	MEP	MECHANICAL, ELECTRICAL, PLUMBING
CJ	CONTROL JOINT	MFR	MANUFACTURER
CL	CENTERLINE	MIN	MINIMUM
CLR	CLEAR	MISC	MISCELLANEOUS
CMU	CONCRETE MASONRY UNIT	MOW	MIDDLE OF WALL
COL	COLUMN	NS	NEAR SIDE
CONC	CONCRETE	NTS	NOT TO SCALE
CONN	CONNECTION	NWC	NORMAL WEIGHT CONCRETE
CONS	CONSTRUCTION	OC	ON CENTER
CONT	CONTINUOUS	OPNG	OPENING
CORD	COORDINATE	OPF	OPERATING HAND
CTRD	CENTERED	PAF	POWDER ACTUATED FASTENER
d	PENNY (NAILS)	PARL	PARALLEL
DBA	DEFORMED BAR ANCHOR	PERP	PERPENDICULAR
DET	DETAIL	PL	PLATE
DIA	DIAMETER	PSF	POUNDS PER SQUARE FOOT
DIM	DIMENSION	PSI	POUNDS PER SQUARE INCH
DIST	DISTANCE	PT	PRESSURE TREATED
DN	DOWN	P-T	POST TENSIONED
DWG	DRAWING	REF	REFERENCE
DWL	DOWEL	REIN	REINFORCING
EA	EACH	REQD	REQUIRED
EE	EACH END	SCH	SCHEDULE
EF	EACH FACE	SIM	SIMILAR
EJ	EXPANSION JOINT	SO-G	SLAB ON GRADE
ELEV	ELEVATION	SPEC	SPECIFICATION(S)
EMBD	EMBEDDED / EMBEDMENT	SQ	SQUARE
ENGR	ENGINEER	STD	STANDARD
EOD	EDGE OF DECK	STIF	STIFFENER
EOS	EDGE OF SLAB	STIR	STIRRUP(S)
EQL	EQUAL	STL	STEEL
EW	EACH WAY	TCK	TOP CHORD EXTENSION
EXST	EXISTING	THRU	THROUGH
EXP	EXPANSION	TOC	TOP OF CONCRETE
EXT	EXTERIOR	TOF	TOP OF FOOTING
FDN	FOUNDATION	TOS	TOP OF STEEL
FFE	FINISHED FLOOR ELEVATION	TOW	TOP OF WALL
FW	FACE OF WALL	TP	TYPICAL
FRT	FIRE RETARDANT TREATED	UNO	UNLESS NOTED OTHERWISE
FS	FAR SIDE	VERT	VERTICAL
FTG	FOOTING	VIF	VERIFY IN FIELD
GA	GAUGE	W/	WITH
GALV	GALVANIZED	WP	WORK POINT

**CAMPBELL UNIVERSITY KIVETT HALL
ROOF REPAIR**

113 MAIN ST., BUIES CREEK, NC



08/06/2019
 THIS DOCUMENT WAS ELECTRONICALLY
 SIGNED BY DENNIS L. FOLMAR, JR.



DATE:	08.06.19
ENGINEER:	DLF
DRAFTING:	ALM
PROJECT NO:	S19-0027.00
REVISIONS:	DATE

GENERAL NOTES,
 ABBREVIATIONS &
 APPENDIX B

S001

2018 NC Administrative Code and Policies



08/06/2019
THIS DOCUMENT WAS ELECTRONICALLY
SIGNED BY DENNIS L. FOLMAR JR

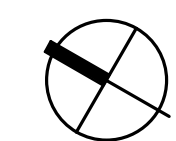
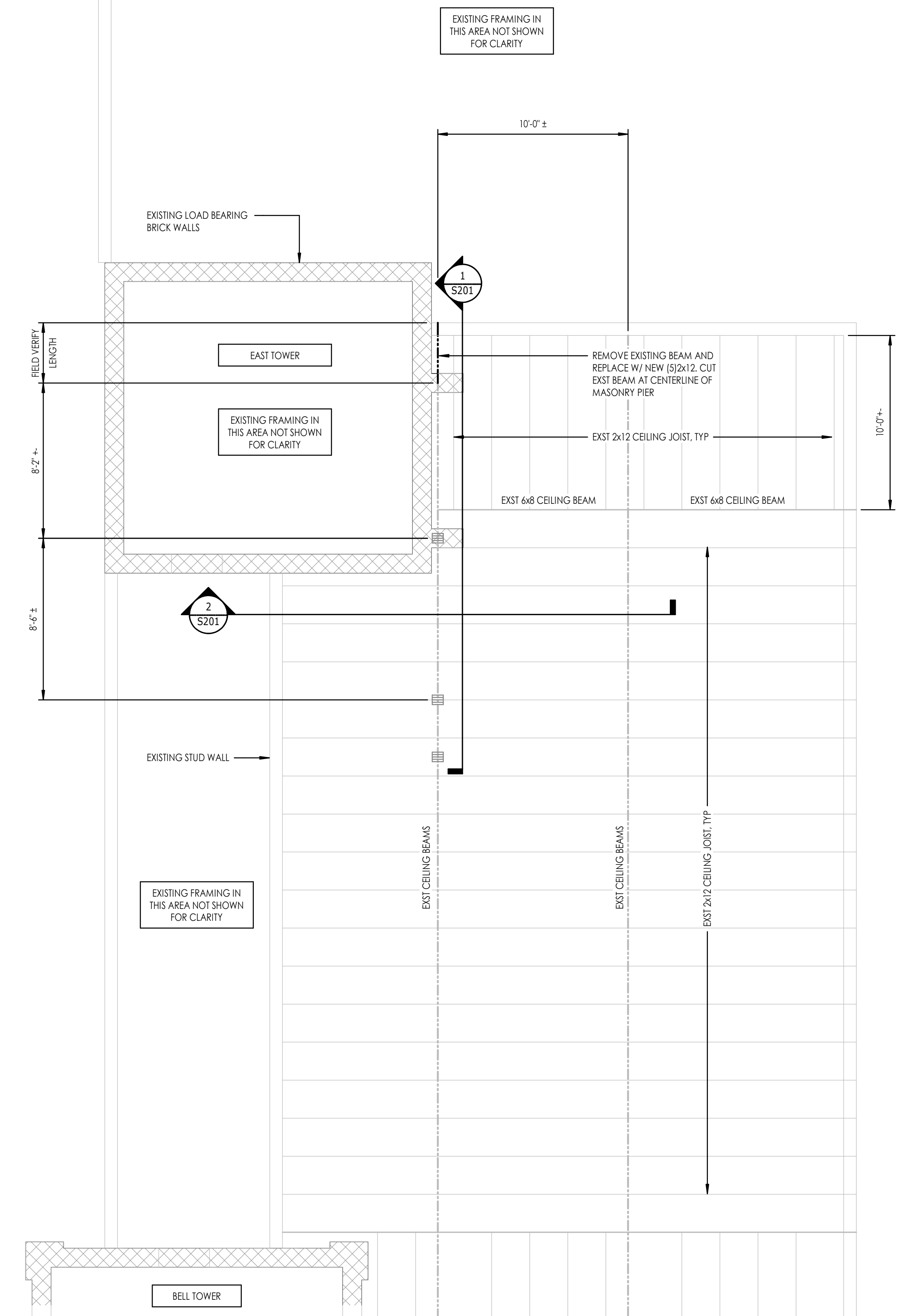
SCALENE DESIGN
FUNCTION • STRUCTURE • FORM
555 FAYETTEVILLE ST.
SUITE 300
FAYETTEVILLE, NC 27401
919.852.5295
919.852.5295

DATE: 08.06.19
ENGINEER: DLF
DRAFTING: ALM
PROJECT NO: S19-0027.00

REVISIONS	DATE

FRAMING PLANS

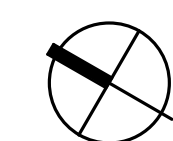
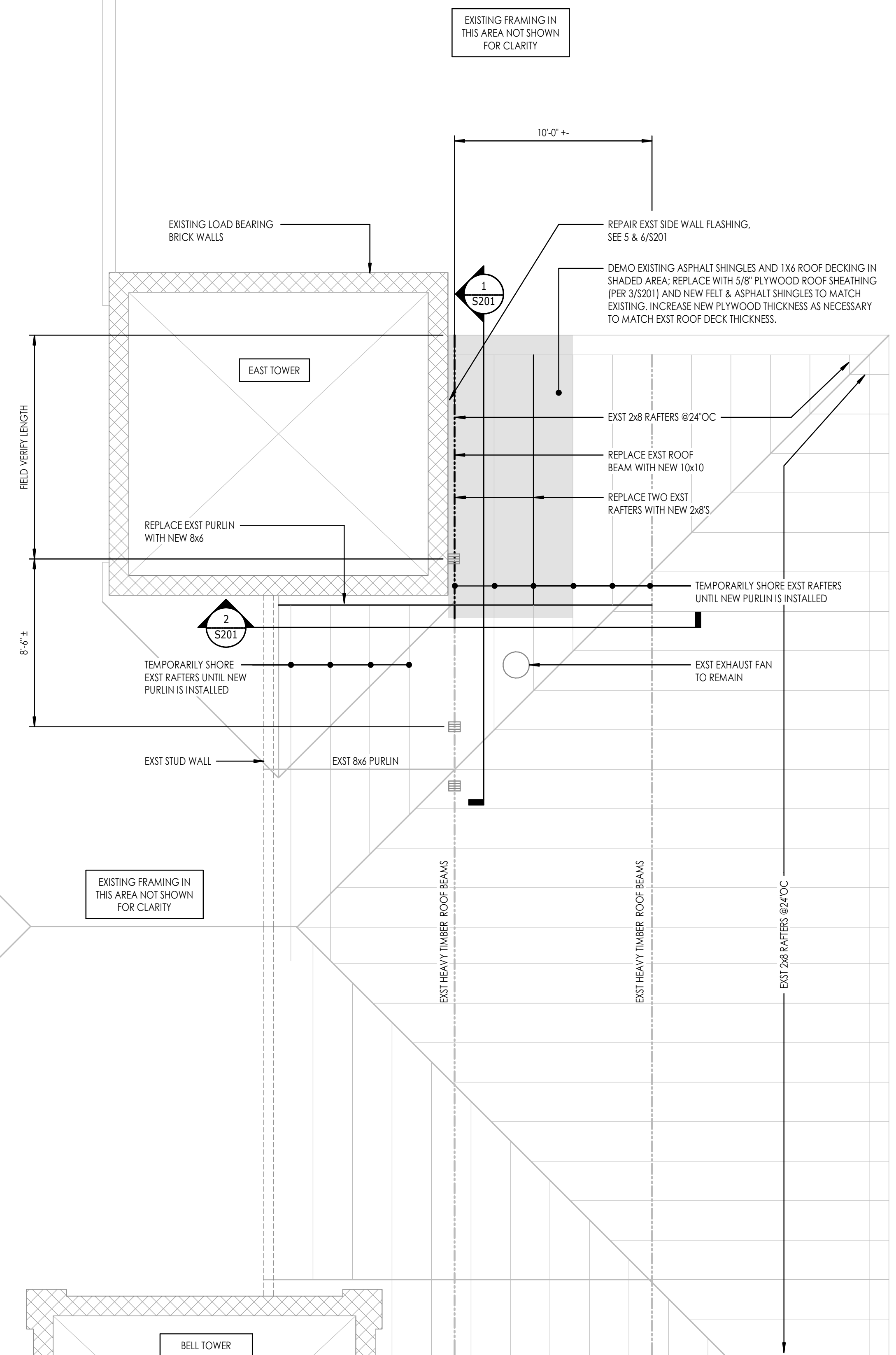
S101



- NOTES:
- SEE S001 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATION LEGEND.
 - ALL ROOF SLOPES AND ROOF GEOMETRY ARE TO BE THE SAME AS THE EXISTING CONDITION.
 - CONTRACTOR TO NOTIFY ENGINEER IF EXTENT OF DAMAGE/ROTTEN WOOD MEMBERS EXCEED WHAT IS INDICATED BY THESE DRAWINGS.



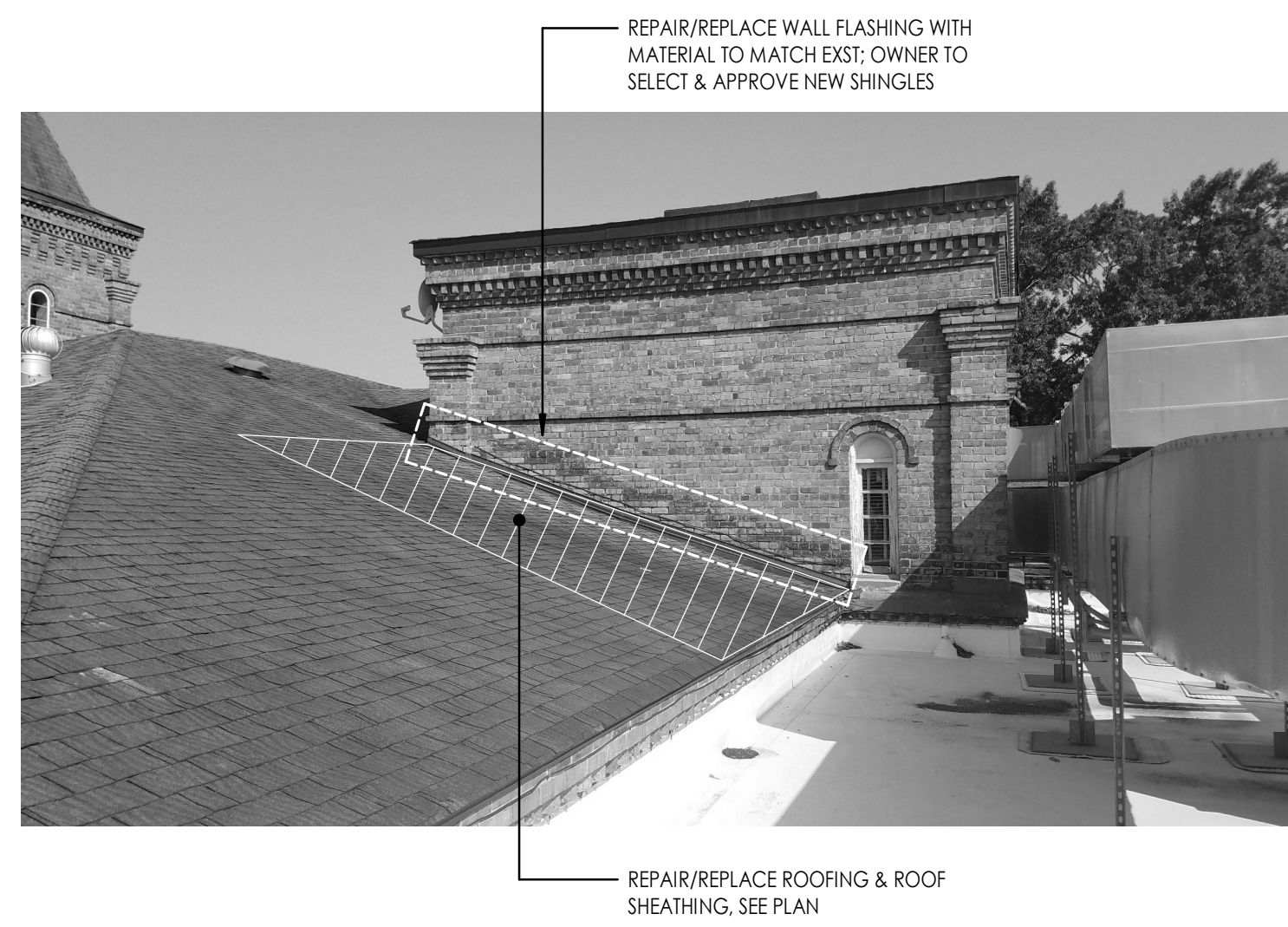
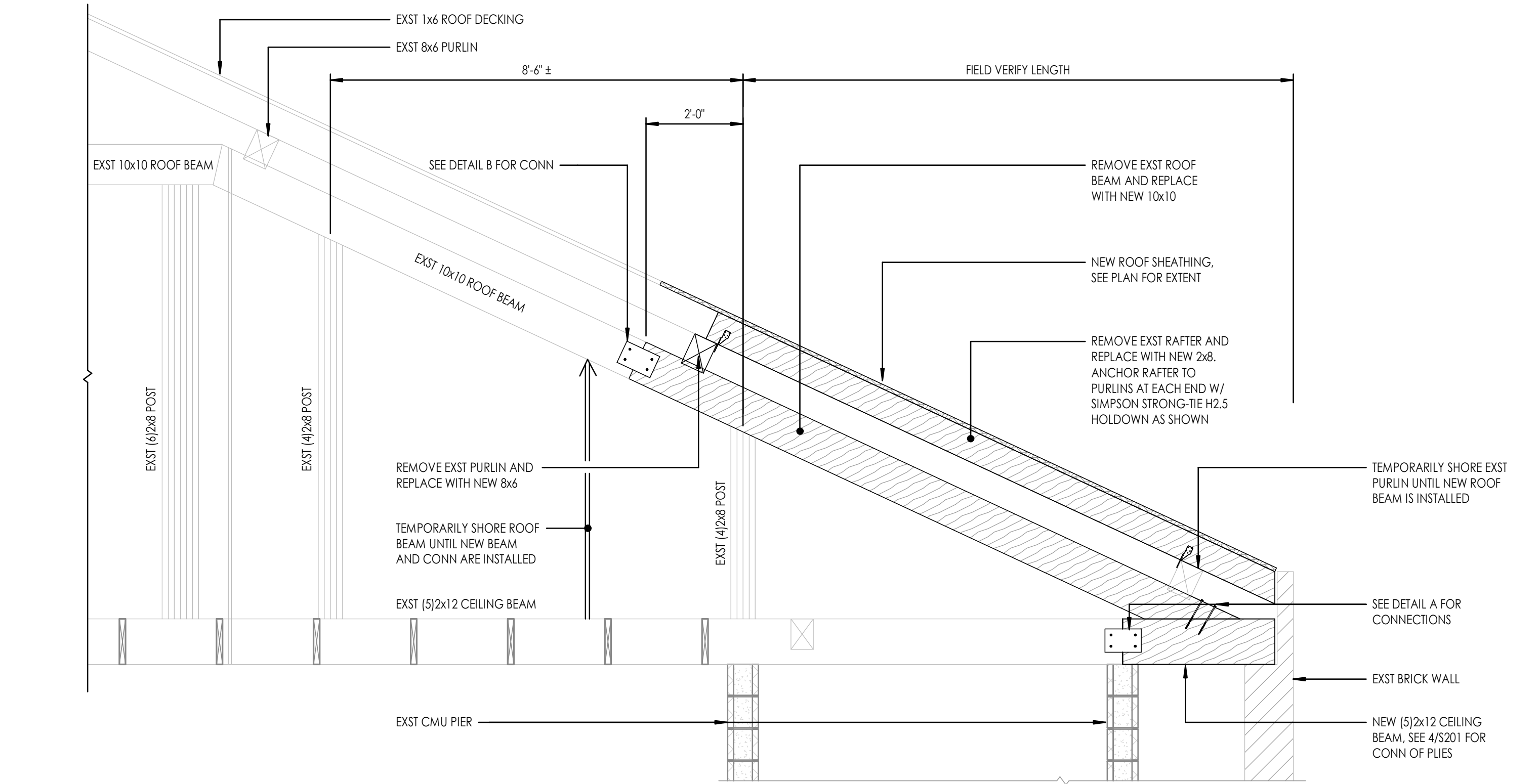
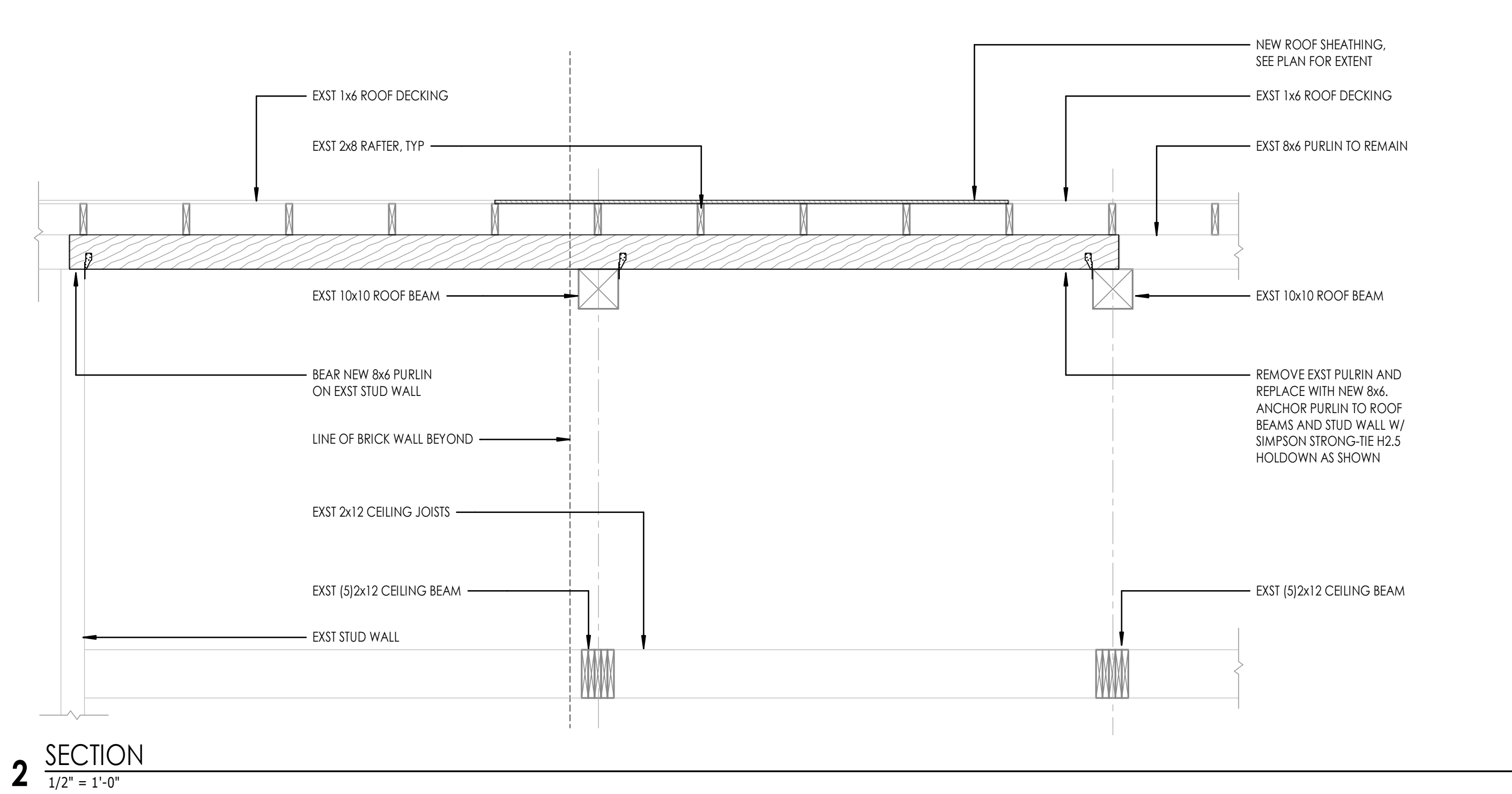
1 PARTIAL CEILING FRAMING PLAN
1/4" = 1'-0"



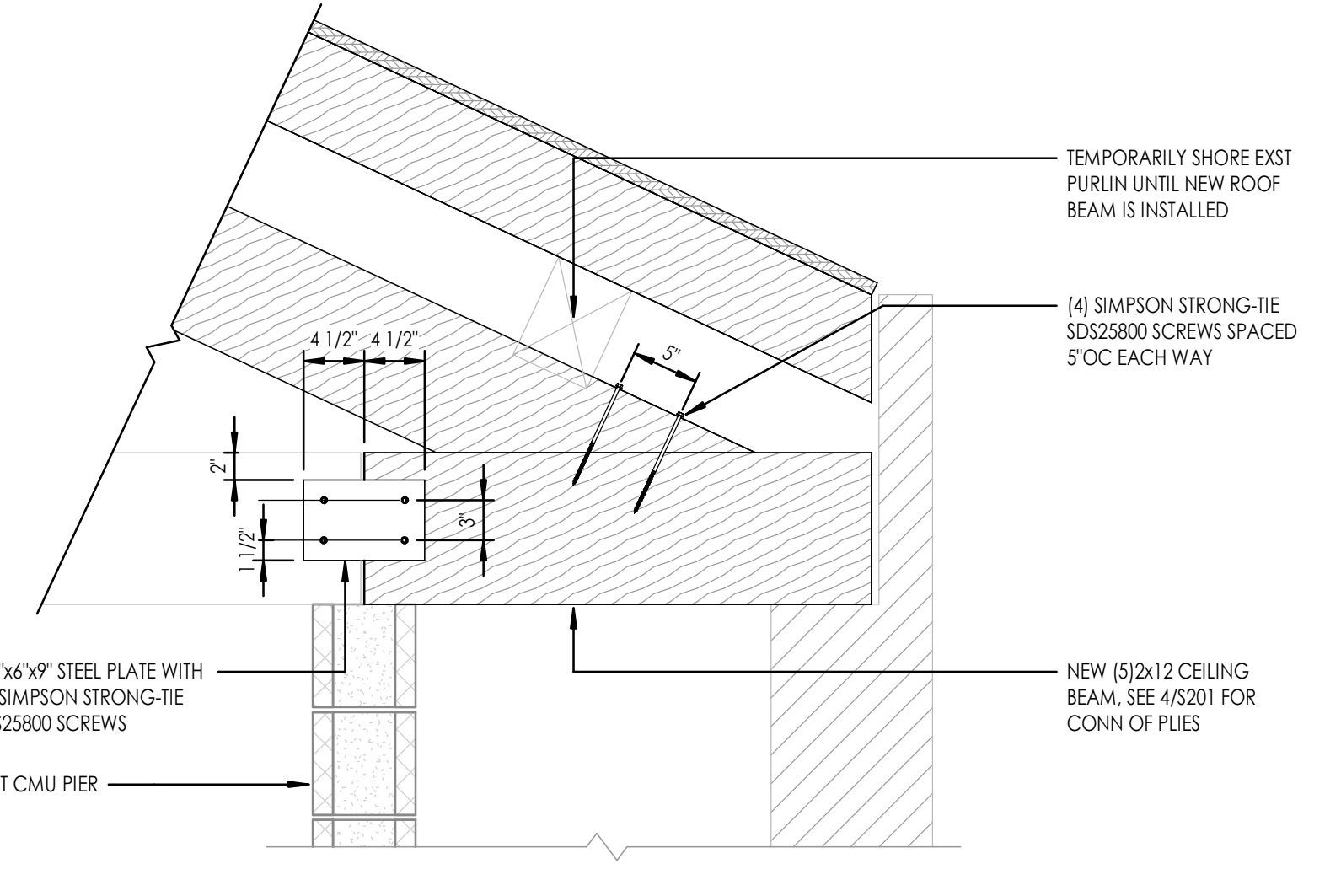
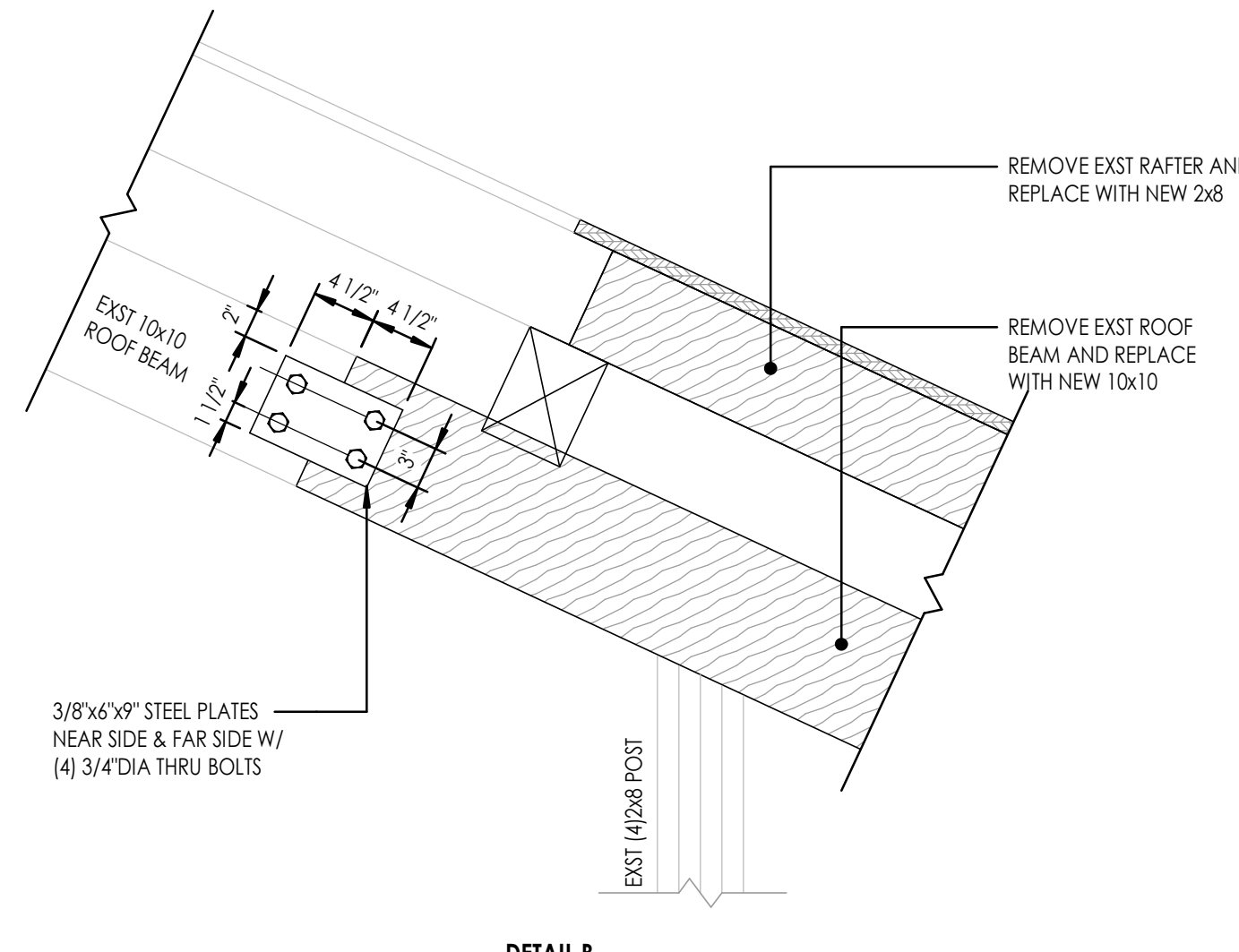
- NOTES:
- SEE S001 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATION LEGEND.
 - ALL ROOF SLOPES AND ROOF GEOMETRY ARE TO BE THE SAME AS THE EXISTING CONDITION.
 - CONTRACTOR TO NOTIFY ENGINEER IF EXTENT OF DAMAGE/ROTTEN WOOD MEMBERS EXCEED WHAT IS INDICATED BY THESE DRAWINGS.



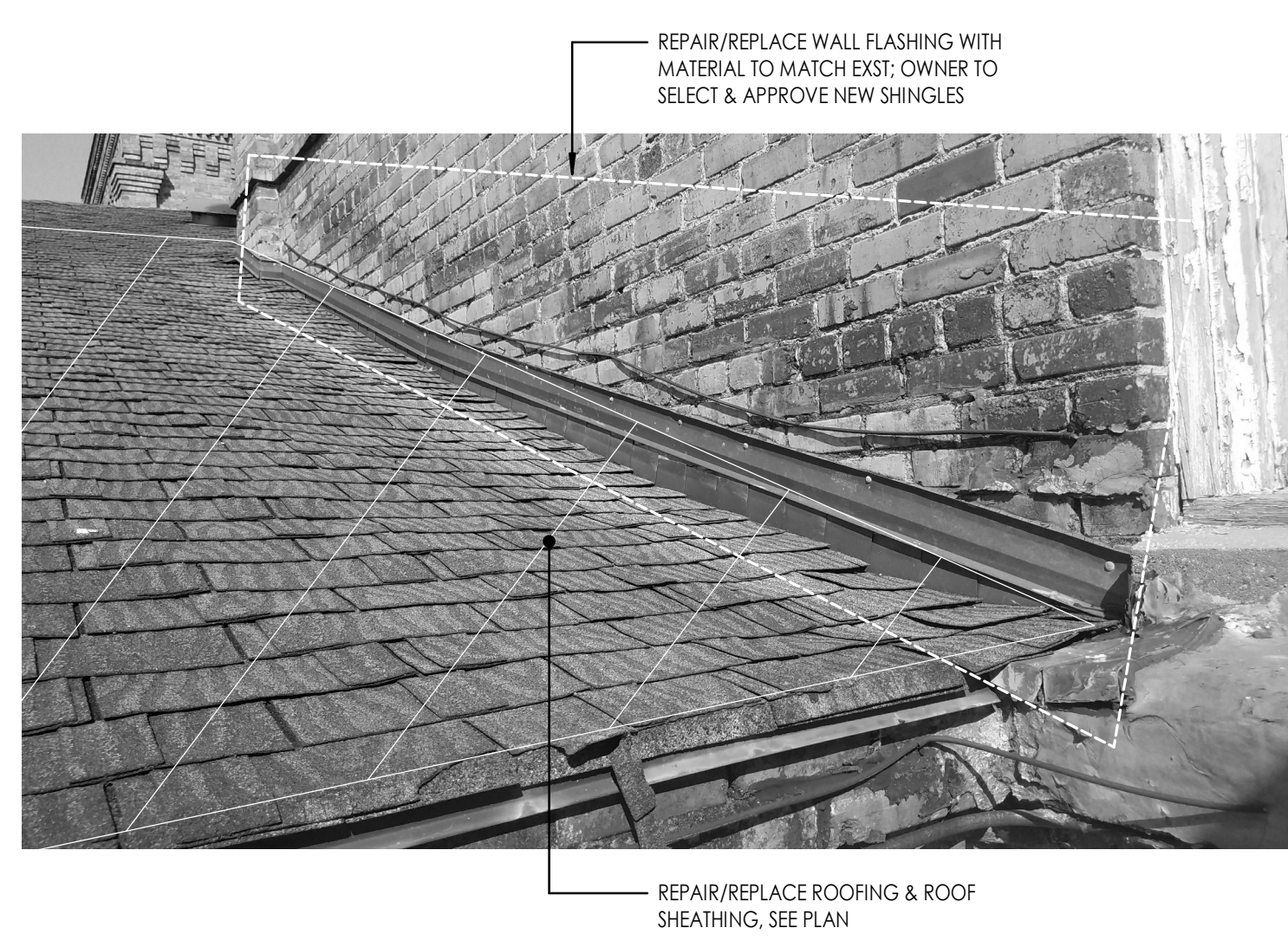
2 PARTIAL ROOF FRAMING PLAN
1/4" = 1'-0"



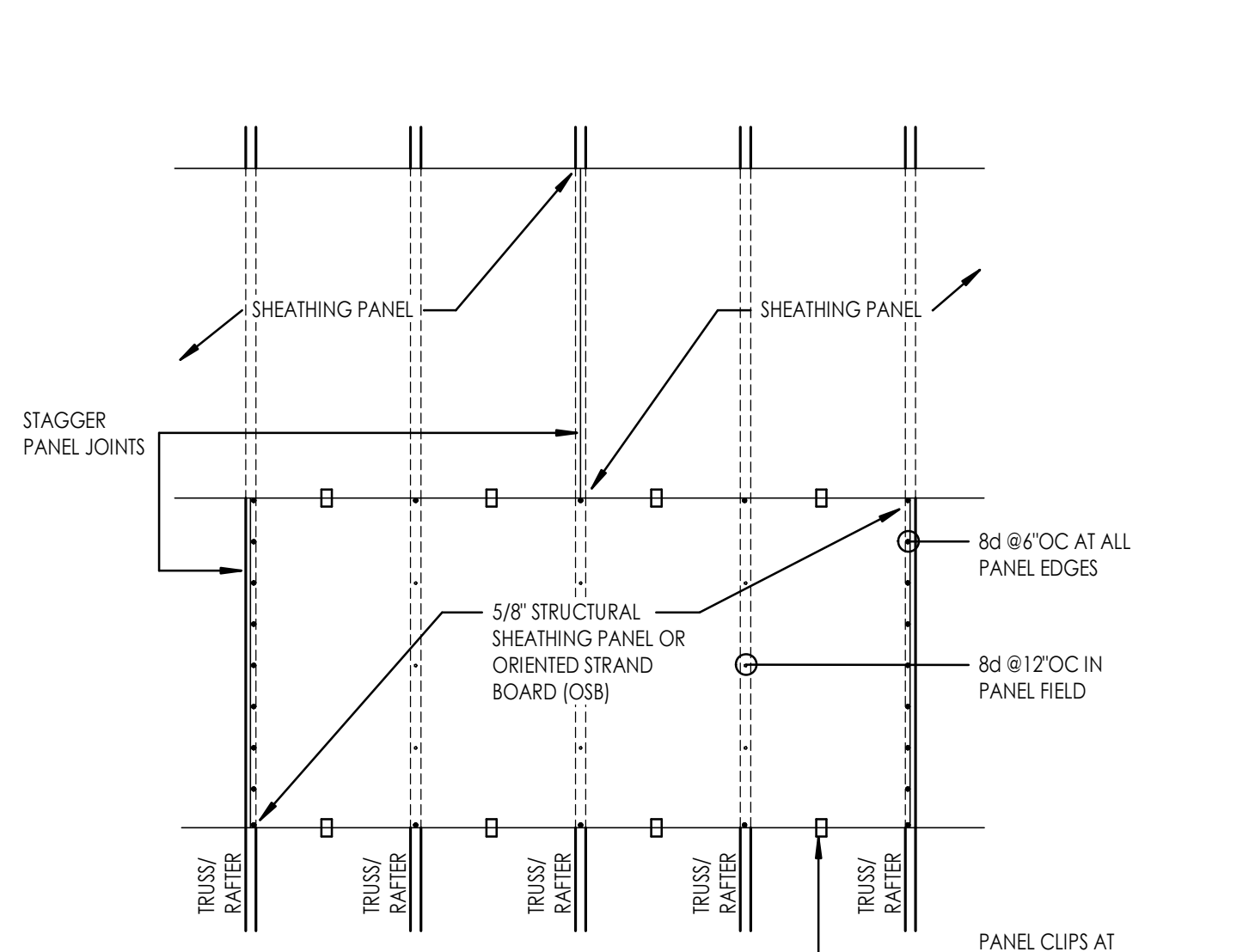
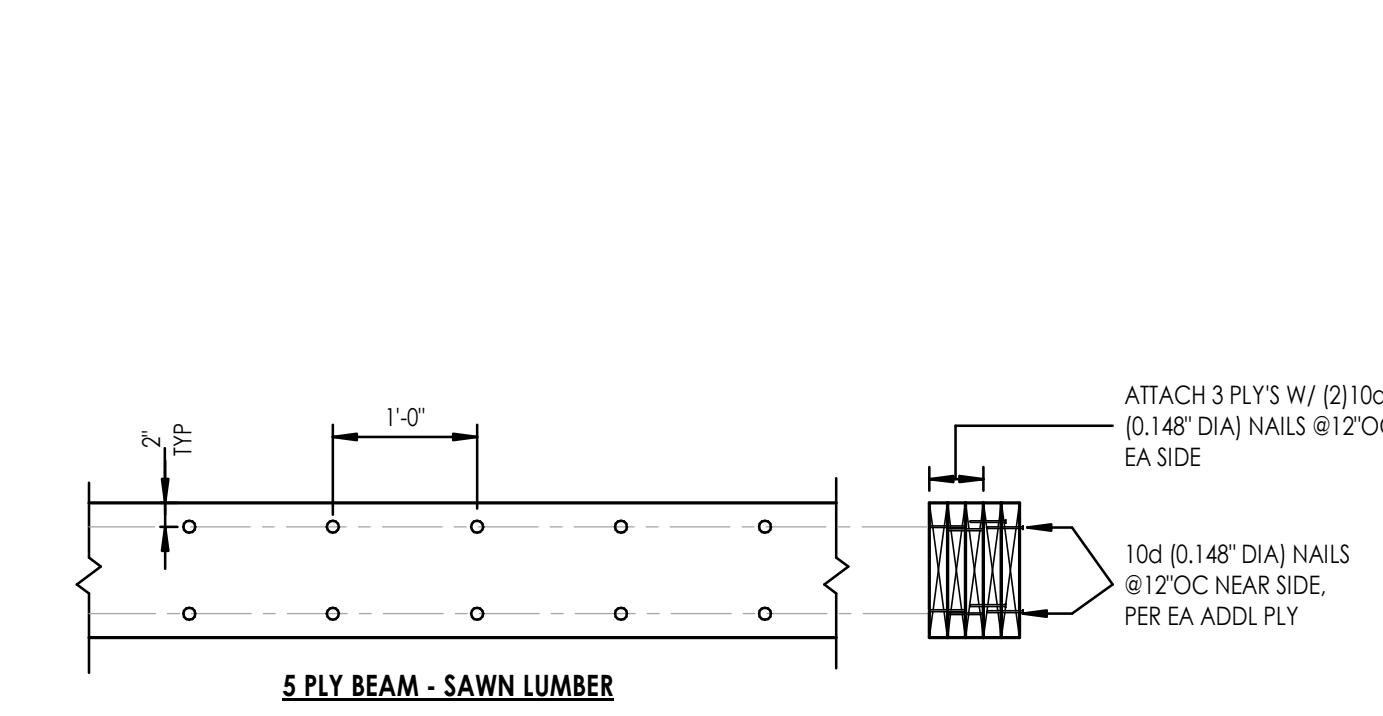
5 EXISTING ROOF
1/2" = 1'-0"



1 SECTION
1/2" = 1'-0"

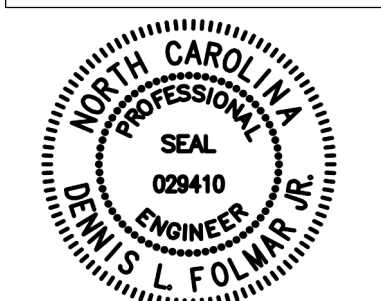


6 EXISTING ROOF
1/2" = 1'-0"



4 MULTI-PLY SAWN LUMBER BEAMS
3/4" = 1'-0"

3 ROOF SHEATHING CONSTRUCTION
1/2" = 1'-0"



DATE:	08.06.19
ENGINEER:	DLF
DRAFTING:	ALM
PROJECT NO.:	S19-0027.00
REVISIONS:	DATE